

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A transmitting communication equipment comprising:

an aggregator for aggregating information based on user service requirements and for transmitting the aggregated information as an aggregated packet to a receiving communication equipment, said receiving equipment having a de-aggregator for de-aggregating the aggregated packet, wherein a size of the aggregated packet is based at least in part on a negotiation between the transmitting communication equipment and the receiving communication equipment.

2. (Currently amended) The transmitting communication equipment of claim 1 ~~where the aggregating of the information is further based on allowed transmission rate~~ wherein the size of the aggregated packet is further based at least in part on channel conditions of a communication channel used for transmitting the aggregated packet between the transmitting communication equipment and the receiving communication equipment.

3. (Currently amended) The transmitting communication equipment of claim 1 ~~where the aggregator has an input for coupling to a first buffer~~ 2 wherein:

the channel conditions are monitored on an ongoing basis during communications between the transmitting communication equipment and the receiving communication equipment; and

a size of each of a plurality of aggregated packets transmitted from the transmitting communication equipment to the receiving communication equipment is based at least in part on the channel conditions at the time when the aggregated packets are generated.

4. (Currently amended) The transmitting communication equipment of claim ~~3~~ where 1 wherein:

the aggregator has an input for coupling to a first buffer; and
the first buffer receives information from a terminal equipment from which said first buffer retrieves the information if the transmitting communication equipment operates in a terminal mode and the first buffer receives information from equipment other than the terminal equipment if the transmitting communication equipment operates in a relay mode.

5. (Currently amended) The transmitting communication equipment of claim 4 where the first buffer retrieves the information in accordance with time delay requirements of the information.

6. (Currently amended) The transmitting communication equipment of claim ~~3~~ where 4 wherein the aggregated information from the aggregator is fed to a second buffer coupled to an output of the aggregator for outputting the information in accordance with time delay requirements of the information.

7. (Currently amended) The transmitting communication equipment of claim 1 where the user service requirements are related to quality of service provided to users of a communication system within which the equipment is being used.

8. (Currently amended) The transmitting communication equipment of claim 1 where the information comprises real time information.

9. (Currently amended) The transmitting communication equipment of claim 1 where the aggregator performs channel coding and modulation on the aggregated information.

10. (Currently amended) A receiving communication equipment comprising:

a de-aggregator for de-aggregating aggregated data packets received from a transmitting communication equipment.

wherein the receiving communication equipment negotiates with the transmitting communication equipment for determining a size of one or more of the aggregated data packets, said aggregated data packets being information aggregated based on user service requirements.

11. (Currently amended) The receiving communication equipment of claim 10 where the de-aggregator transfers information from the de-aggregated aggregated data packets ~~received information~~ in accordance to time delay requirements of the information to a terminal equipment, if the receiving

communication equipment operates in a terminal ~~mode~~ mode, and the de-aggregated information is transferred to equipment other than terminal equipment if the receiving communication equipment operates in a relay mode.

12. (Currently amended) The receiving communication equipment of claim 10 where the de-aggregator has an input for coupling to a first buffer and an output for coupling to a second buffer.

13. (Currently amended) The receiving communication equipment of claim 12 where the de-aggregator provides ~~the de-aggregated information~~ from the de-aggregated aggregated data packets to the ~~first~~ second buffer for outputting such information in accordance with the time delay requirements of the ~~received~~ information.

14. (Currently amended) The receiving communication equipment of claim ~~12~~ where the de-aggregator has an input coupled to a second buffer 10 wherein the size of said one or more of the aggregated data packets is further based at least in part on channel conditions of a communication channel used for transmitting the aggregated packets between the transmitting communication equipment and the receiving communication equipment.

15. (Currently amended) A method of transmitting information, the method comprising the ~~steps of: step of:~~

~~aggregating at least a portion of information~~ a plurality of data packets into a plurality of aggregated data packets based on user service requirements, said data packets being aggregated at a transmitting node having an aggregator; and

transmitting the aggregated data packets over a communication channel from the transmitting node to a receiving node, said receiving node having a de-aggregator,

wherein the transmitting node and the receiving node communicate for determining a size of one or more of the plurality of aggregated data packets.

16. (Currently amended) The method of claim 15 ~~where the information is encoded prior to being aggregated~~ wherein:

at least one of the receiving node and the transmitting node monitors channel conditions of the communication channel; and

the size of one or more of the plurality of aggregated data packets is based at least in part on the monitored channel conditions.

17. (Currently amended) The method of claim 15 ~~further comprising the step of buffering the aggregated information~~ 16 wherein the size of each aggregated data packet is determined based at least in part on the channel conditions at the time when the aggregated data packet is generated.

18. (Currently amended) The method of claim ~~17~~ where 15 further comprising:

buffering the aggregated data packets, wherein the buffered aggregated information is data packets are outputted in accordance with timing delay requirements of the aggregated data packets information.

19. (Currently amended) The method of claim 15 where the step of aggregating the ~~information~~ data packets further comprises channel coding the ~~information~~ data packets.

20. (Currently amended) A method for ~~receiving~~ communicating information over a communication channel, the method comprising the steps of: ~~step of:~~

receiving a plurality of data packets at a transmitting node, said data packets being associated with an end user;

aggregating at least a subset of the plurality of data packets into an aggregated data packet, wherein a size of the aggregated data packet is determined through a negotiation between the transmitting node and a receiving node based at least in part on user service requirements associated with at least one of the end user, the communication channel, and the data packets; and

transmitting said aggregated data packet over the communication channel to the receiving node, for de-aggregation of the aggregated data packet at the receiving node ~~de-aggregating received information where such information is aggregated based on user service requirements.~~

21. (Currently amended) The method of claim 20 further comprising the steps of: step of

at the receiving node, de-aggregating the aggregated data packet to form a plurality of de-aggregated data packets, said de-aggregated data packets corresponding to the data packets previously aggregated into the aggregated data packet at the transmitting node; and

buffering the de-aggregated data packets information.

22. (Currently amended) The method of claim 21 where the buffered de-aggregated data packets are information is outputted in accordance with time delay requirements of the de-aggregated data packets information.